

	Colour coded duplex sonography									
	Vein incompressibility			Absence of flow phasicity			Visualisation of thrombus			
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total	
Venography	Positive	54	1	55	52	3	55	48	7	55
	Negative		39	39		39	39		39	39
	Total	54	40	94	52	42	94	48	46	94
Sensitivity	98% (90 to 100%)			95% (85 to 99%)			87% (76 to 95%)			
Specificity	100% (91 to 100%)			100% (91 to 100%)			100% (91 to 100%)			
Positive predictive value	100% (93 to 100%)			100% (93 to 100%)			100% (93 to 100%)			
Negative predictive value	98% (87 to 100%)			93% (81 to 99%)			85% (71 to 94%)			

offers simultaneous visualisation of real time B-mode images and flow by pulsed colour coded Doppler sonography.

In our study the best diagnostic criterion was incompressibility. The only false negative result was during the early phase of the study in a patient with a thrombus limited to the adductor canal. Since this case no further isolated adductor canal thrombosis has been missed by accurate examination of this region. This confirms other reports that the assessment of vein incompressibility is the most reliable criterion for deep vein thrombosis.⁵

Colour coded visualisation of venous flow has considerable diagnostic advantages in that it more

successfully detects a non-occlusive free floating thrombus with visible flow around it, which is known to be a high risk for thromboembolism. Moreover, a fresh hypoechogenic thrombus may be misinterpreted by conventional duplex sonography. Another advantage is the quick and reliable identification of vascular structures, especially in the popliteal fossa, where accessory veins are not easily distinguishable from other structures. Colour coded duplex sonography can be performed at the bedside, is time sparing, and permits diagnosis of other abnormalities that mimic deep vein thrombosis—for example, haematoma, Baker's cyst, and neoplasm.

We conclude that colour coded duplex sonography is a highly accurate, simple, non-invasive method for detecting femoropopliteal thrombosis. Additional venography is not necessary. Its value in diagnosing isolated calf vein thrombosis remains to be established.

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Are falls from supermarket trolleys preventable?

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Children are commonly transported around supermarkets in the seat of a supermarket trolley. Usually no restraint is fitted, making it easy for a child to stand up. We report a series of falls from such trolleys and discuss some preventive measures.

Patients, methods, and results

All children presenting to this department after a fall from a supermarket trolley were prospectively recorded over six months. During this time 8215 children attended the department, 10 of whom had fallen out of a trolley and injured their head. The details of their injuries are shown in the table. None of the children had been restrained. Their mean age was 24 months (range 9-50 months). Three children were admitted to hospital, one of whom had sustained an occipital fracture.

Details of children with head injuries who fell from supermarket trolleys

Child	Sex	Age (months)	Loss of consciousness	Skull fracture	Outcome
1	F	18	No	No	Discharged with instructions about head injuries
2	F	13	No	No	Discharged with instructions about head injuries
3	F	9-5	No	No	Discharged with instructions about head injuries
4	F	42	No	No	Discharged with instructions about head injuries
5	M	23	No	No	Discharged with instructions about head injuries
6	M	13	No	No	Discharged with instructions about head injuries
7	M	40	No	No	Discharged with instructions about head injuries
8	M	9	Yes	No	Observed for 8 hours
9	F	20	Yes	No	Observed for 24 hours
10	F	50	No	Yes	Observed for 24 hours

To identify preventive measures we went to six supermarkets chosen at random. Details of 50 consecutive children placed in a trolley in each supermarket were recorded. Of these 300 children, only six were restrained with a child harness. None of the trolleys was fitted with a restraining device.

Comment

We believe that we are the first group to report this type of injury. The fact that all the children in this study received a head injury shows the ease with which children fall head first. Despite the small number of children a third were admitted to hospital but none had appreciable intracranial abnormality. Few of the other mechanisms of injury gave such a high admission rate. These children, however, represent a group in whom the accident is easily preventable.

Using child restraints and harnesses has become "outdated," but we believe that they could help to reduce this type of fall. During our study we became aware of a recently developed restraint designed to prevent such accidents.¹ We recommend that all supermarkets that provide trolleys should be encouraged to provide the means to restrain a child within the trolley to help to reduce the incidence of this type of accident. Parents should be made aware of the benefits of using a restraint or harness and be encouraged to use these. We recommend that advice on child restraints should be included in all publications on prevention of accidents in children. Child surveillance programmes in general practice should also include such advice.

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